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NUMBER 10

THE AGRICULTURAL STUDENT

OHIO STATE UNIVERSITY, COLUMBUS, OHIO



JUNE, 1919

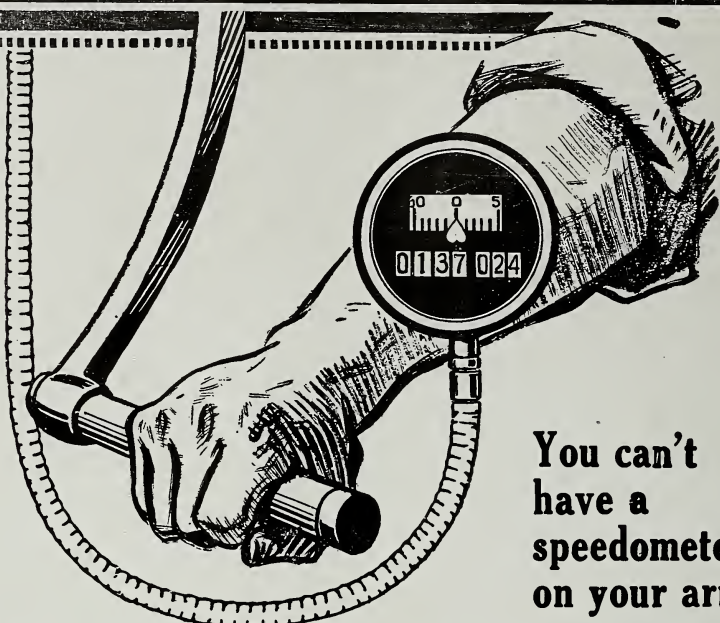
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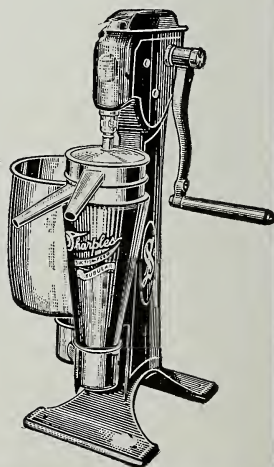
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The Agricultural Student

VOL. XXV.

OHIO STATE UNIVERSITY, COLUMBUS, OHIO, JUNE, 1919

No. 10

THE OPPORTUNITIES OF THE AGRICULTURAL COLLEGE GRADUATE

By M. F. MILLER, College of Agriculture, University of Missouri

THE ultimate success of the Colleges of Agriculture will be measured by their influence upon farm practice. It is the duty of these colleges to disseminate the knowledge secured thru experiment station investigations among rural people. This must be done thru the men who go out from their doors. It does not mean, however, that any large percent of the farming class will ever enroll as resident students. Such a plan would be impractical from the standpoint of institutional equipment and it would be impossible for most farm boys because of the necessary expense. These institutions must of course, train some practical farmers who will be the leaders in the open country. They must prepare men for disseminating information thru the extension service. They must train teachers of vocational agriculture for the secondary schools, as well as investigators and teachers for their own organizations. The young man who graduates from one of these colleges, therefore, has many lines of work open to him, altho each line will demand the best there is in him if any marked degree of success is attained.

The opportunities in practical agriculture were never better than they are today. It is true that more capital is required than ever before, but the opportunities for financial gain are very good. For the man who loves the open

country, who has business ability as well as capital, no phase of agriculture will give greater satisfaction. Moreover, the country needs, as much as any one thing, the fearless leadership, the practical example and the progressive viewpoint of the college trained farmer. The peculiar opportunities offered any one individual, however, will depend largely upon his business ability. Farming is a technical business and no amount of agricultural training will insure business success. The combination of business sense and agricultural training is necessary. If to this is added good land and ready markets, large financial returns are possible.

For the man without capital, modern practical agriculture offers little, except as he may gain entrance to this field by way of a farm managership. Undoubtedly the opportunities for trained farm managers will increase. But here again business judgment and the ability to handle men are as important as agricultural knowledge. The colleges could do much to train farm managers, but thus far only a beginning has been made. As the work of these institutions has become more and more technical, and as more attention has been given to the subjects of farm management and rural economics, the preparation which one can secure for the position of farm manager has constantly improved. Colleges of Ag-

riculture are coming to train specialists along all lines and the specially trained farm manager is to be one of the products of these institutions.

One of the great needs of the day is for properly trained teachers of vocational agriculture for secondary schools. The majority of the farmers of the coming generations must be trained in such schools. The passage of the Smith-Hughes act, providing large federal grants to the states for developing such instruction in the high schools of the country, is creating a demand for properly trained teachers which the agricultural colleges are having great difficulty in meeting. The character of instruction required in these Smith-Hughes schools is such that only graduates of the Colleges of Agriculture can qualify. The instruction in vocational agriculture is practical. It is very different from the agriculture formerly taught by normal school graduates and young women in many of the high schools of the country. Furthermore, the opportunities for the agricultural college graduate in this line are excellent. It is a type of teaching of which no college graduate need be ashamed. As a matter of fact, combining as it does many of the duties of the county agent with those of the thoroly equipped teachers of agriculture, it is going to take the best efforts of agricultural college men to succeed. However, when success has been attained there will be ample funds to provide excellent financial reward. The salaries of these men will compare favorably with those of the county agent, the teacher in a college of agriculture and the investigator in an Experiment Station. Furthermore, it is an excellent stepping stone for the man without capital to a beginning in practical agriculture.

There is an additional phase of the Smith-Hughes work which warrants consideration. This has to do with the training of vocational teachers and the supervising of the work of Smith-Hughes schools. Every college of agriculture must develop a strong department of agricultural education to assist in the training of graduates for vocational teaching. The best of the vocational teachers will undoubtedly be recalled, as the need arises, from the high schools of the state into the agricultural colleges and become members of the teacher training staff. Others will be drawn into the supervisor work of the state departments of education. Such positions offer much opportunity for the man who is thoroly trained in agriculture and who in addition can secure a fairly liberal training in education.

The opportunities under the Smith-Lever act are too well known to need extended comment. County agents, subject matter specialists in all lines, boys and girls club leaders, and demonstration agents make up a veritable army of such workers now engaged in the extension service. In the corn belt states an agricultural college training is prerequisite to work in most of these lines. Such men must also have much practical experience so as to be able to give direct help. They must be able to see the farmers point of view and secure his confidence. A genuine sympathy with the work of the man on the land is essential. The desire for service should be strong. Given these attributes, the opportunities in extension service are very great. Without them they are very small.

There has been a tendency for the college teacher and the investigator to scoff at the extension man. They have felt that he was superficial and that too

often he told more than he knew. There has been some grounds for such criticism, since the tremendous demand for these men has not made it possible to secure those of the best qualifications in every case. This has been especially true as a result of the tremendous demand in connection with the propaganda for increased food production. With the systematizing of methods, however, and with a better organization of material for extension teaching, the men have become more efficient. In extension service a man with a real mes-

fessor of agriculture. But agriculture science has grown—a science with ramifications so diverse and with bearings so complex that a modern college teacher or investigator must spend much time in graduate study before he is properly prepared for work in any phase of the subject. Agricultural scientists are, therefore, becoming more like pure scientists, if such a distinction is allowable. Their training must be along the lines of a specialty, and while they should know the practice upon which their specialty has a direct



TOWNSHEND HALL, OHIO STATE UNIVERSITY

sage and a desire for service need never be ashamed of his job.

The opportunities for men in college teaching and in agricultural research will always remain. Such positions, however, are demanding more and more technical training. There was a time when teachable material in agriculture was meager. These were the days of the beginning—the days of the pro-

bearing they must certainly know the science underlying it.

Men looking forward to college or station work should search their hearts. This work demands a desire for discovering or for imparting truths that is greater than the desire for financial gain. It requires absolute honesty in interpretation of experimental results. For men properly qualified for such

work, the opportunities are unlimited, and the satisfaction to be secured is very great. It is hoped that the immediate future will see a much better paid class of agricultural scientists than has been the case thus far. Nevertheless men entering this field should enter it for the love of the work rather than with any thought of marked financial gain.

The field of agricultural journalism has developed greatly in recent years. Many of the leading agricultural papers are now edited by graduates of colleges of agriculture. As a matter of fact, such training is almost necessary for the most efficient work in this field. Some of the larger agricultural weeklies are also employing agricultural graduates as story writers and as field agents at very handsome salaries. Most colleges of agriculture are providing some training in journalism for their students. In some universities, schools of journalism have been established, where agricultural students can get a very thorough training in journalism. In other institutions there are departments of agricultural journalism, or the department of English offers courses for training along this line. The indications are that the opportunities along this line will increase. Men with a particular bent for this sort of work should not hesitate to go into it. There are great opportunities for doing much good.

Much might be said of the opportunities along commercial lines now opening to agricultural college graduates. Such positions sometimes offer extremely high salaries as compared with those commonly received by such men. Some of these demand a character of service similar to that of the extension man. Others require a particular aptitude for business or for pro-

paganda. The character of the man required for such positions naturally depends upon the particular nature of the work, but usually he must be alert, he must be able to mix with people and to present a good appearance. Such positions are usually best filled by men who have entered the college of agriculture from towns or cities and whose farm experience is somewhat restricted.

The National Department of Agriculture is continuing to demand great numbers of agricultural college graduates. These positions usually offer good opportunities. On the whole the large resources of the governmental bureaus make possible the payment of fair salaries, particularly in the initial stages, and they offer a great deal for individual accomplishment. Because of the rapid development of the National Department, however, and because of the scarcity of properly trained men, this service, like that of extension, has suffered thru the employment of men with meager experience and training. There is opportunity and need for men of the highest ability and the best training in the federal service.

It should not be inferred from what has been said that success awaits every agricultural college graduate regardless of his efforts. Success, in the various phases of agriculture, depends upon the individual, as it does in any other line of work. It has seemed to me in recent years, as larger numbers of young men have entered our agricultural colleges from cities and towns, that they were doing so with the idea of securing, what might be termed in student vernacular, "a good job." The advertising which the so-called "scientific agriculture" has received at the hands of the popular magazine

(Continued on page 603)

A FEW HINTS TO AG. UNDERGRADUATES

By T. G. WATSON, Secretary of the College of Agriculture

NOW is the time that students are thinking of and planning their work for next year. A great deal of inconvenience and time may be saved if the courses to be pursued during the next year are scheduled before the students leave for their summer vacation. If the schedule card is approved early, the fee card can be made out and be ready in plenty of time for registration next fall. This will save confusion at the beginning of next semester when everyone is busy. The faculty are all here now and are ready to advise and help the student.

In making out a schedule the required courses should be kept in mind. After first year there are not many of these. They should be worked off as early in the course as possible, not overlooking, of course, courses that are prerequisite for the major work of the student. If they are taken early in the course, the latter part can be used for uninterrupted pursuit of major work. For the students in agriculture, the required course are Economics 101-102 and one semester of work in each of the following departments: Agricultural Engineering, Animal Husbandry, Dairying, Entomology, Farm Crops, Horticulture, and Rural Economics. Those majoring in Horticulture must take Economics 101-102, Entomology 107-108, Botany 125-126, and Botany 116.

Before the close of the second year, the student must choose a department in which he will carry his major work throughout the third and fourth years. The head of the department, or other instructor appointed by him, will become the student's advisor. The advisor will help the student in arranging

his course both as to major and minor subjects. The signature of the advisor on the schedule card is necessary before it can be approved by the secretary.

Farm experience is a requirement for graduation that must be met this year, for the first time, by students in the College of Agriculture. Those students majoring in Agriculture and Horticulture who graduate this year must have one summer of farm experience. Those that graduate next year must have two summers of farm experience while those who graduate in 1921 must have three summers of farm experience. The new students who register in the College of Agriculture next fall and thereafter, except those in Home Economics, must have one year of farm experience before they can register for their junior year. This does not mean, working on a farm any twelve months out of several years but it does mean working on a farm for twelve consecutive months. This farm experience may be gained before a man enters the College of Agriculture, or it may be obtained after the student has entered the University by dropping out for one year.

The students who return to the University next fall will not find many changes in the courses except in the time at which they will be offered. This is due to the fact that the University faculty at one time decided not to make changes for this next year because of war conditions. It was found necessary, however, to make some change in the time at which certain courses will be offered in order to eliminate schedule trouble. These changes will make it easier for the student to make out a good schedule of work.

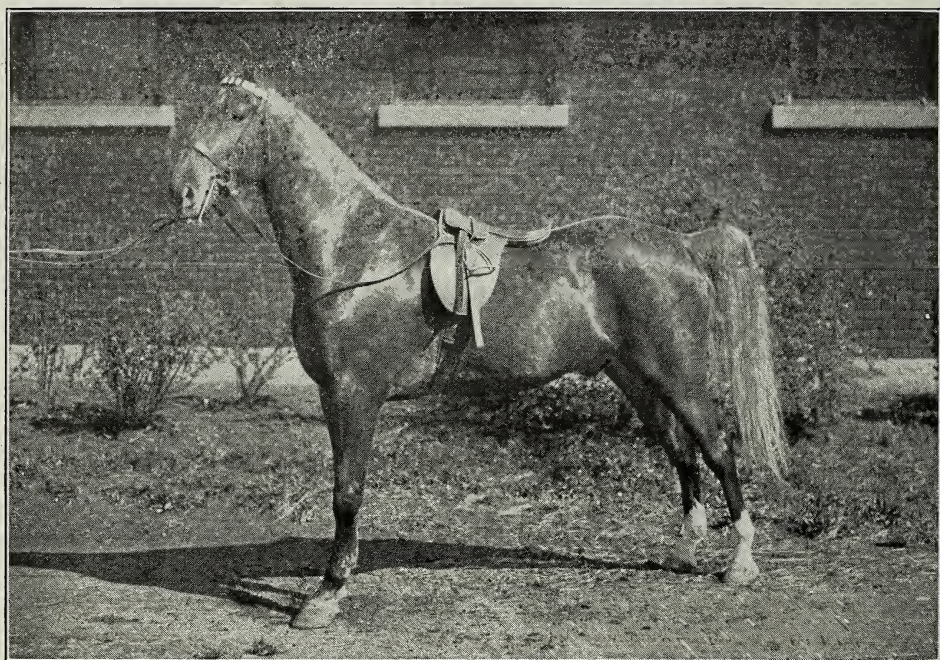
(Continued on page 596.)

THE OHIO STATE HORSE SHOW

An ideal spring afternoon, a good crowd, and keen competition made the Sixth Annual Horse Show put on under the management of the Saddle and Sirloin Club a real success. After passing into oblivion for two years due to the war the students this year revived the show and put it over in fine style. Twelve events were put on for the gathered lovers of the light legs and

was a battle and the best horse won. Miss Merkle rode her own mount and received much admiring comment. Mr. Long of Delaware can feel very proud of his horse "Delawanda," and as he is just coming into his own we can look forward to many winnings by this individual.

"Connoisseur" won the cup contributed by C. T. Dunkle, president of



"CONNOISSEUR," WINNER OF THE THREE-GAITED LADIES' MOUNTS CLASS, OWNED AND RIDDEN BY MISS JESSIE MERKLE

fine horse flesh. The special event, the musical chairs had to be called off on account of the wet condition of the field.

The big event was the proverbial unlucky 13 but not so for Mr. A. C. Long's horse "Delawanda," the fine chestnut gelding that romped away with the Horse Show Championship. He won over "Connoisseur," the stylish bay gelding of Miss Jessie Merkle. It

The Overland Dunkle Company, in the three gaited saddle horse event; that donated by Ralph C. Wilson, manager of the Columbus Cadillac Company, in the three gaited ladies' mounts; and the William Merkle trophy in the ladies' single driver heavy harness horse event.

"Connoisseur" was compelled to take second in the three gaited saddle horse, owners' riding, event. "Freelander," the Brown gelding of Goode M. Wat-

kins of Chillicothe cantered away with the Deshler Hotel trophy for this performance. Frank Tallmadge's "Fantanna" took third and Miss Martha Brown's "Tonni" took fourth. There was considerable interest aroused as the owners themselves had to ride for honors in this event.

Jeffries cup; "Freelander" took second; "North Star," owned by Eli Long, third; and "Little Tim," also one of the Mitchell Academy's entries, took fourth.

"Delawanada," winner of the saddle horse championship, took the Harry J. Schwartz trophy in the sixth event for



"DELAWANDA," CHAMPION OF THE SHOW, OWNED BY MR. A. C. LONG.
DELAWARE, OHIO

Oh! wasn't that a shame was often heard when one of the hunters failed to clear the hurdles, and yes it was for we would all like to see them go over but all had to be eliminated save one and that was "Lady Romance," owned by the Mitchell Riding Academy of Columbus, and ridden by Mrs. Frances Robbins Breath, who took the Tice-

three gaited saddle-horses. "Freelander" took second, "Lucy Peavine" third, owned by Miss Martha Grace Miller of Newark, and "On Parade," the sorrel gelding of Major Harry W. Brown took fourth.

In the Ladies' Mounts event won by "Connoisseur," "Tonni" took second, the black mare of Miss Martha C.

Brown, "Over the Top," a beautiful chestnut gelding and just a mere colt attracted much attention by his performance but was compelled to take third against a difficult field. He was ridden by Mrs. Breath. "Lucy Peavine" was given fourth money.

Among the five gaited mounts, "The Manager" took the W. C. Metz cup, "Tip Top" of the Mitchell Riding Academy took second. "Daisy Lambert," owned by L. L. Taylor and "Let's Go," the sorrel gelding of Miss Catherine J. Brekenridge, took third and fourth respectively.

Mitchell's Riding Academy's chestnut gelding, "Spartin," took second in the three gaited event, being beaten by "Connoisseur." "Tonni," owned by Miss Brown and Mr. Tallmadge's "Fantanna" took third and fourth respectively.

The classy event of the show was the saddle horse pairs being ridden by a man and woman in each case. Tallmadge's "Fantanna" and "Fernleaf" cantered away with the trophy offered by the Columbus Riding Club.

The Mitchell's Academy, "The Manager," took the Chittenden Hotel trophy in the combination event of the five gaited saddle horses. "Daisy Lambert," the entry of L. L. Taylor, took second, and "Spartin" of the Mitchell's Academy took third.

Miss Anna S. Beyerly's entries captured the majority of the roadster prizes, "King Jr" taking the James Westwater cup and "Colonel" taking second. John N. Brittain's "Peggy Lambert," and Taylor's "Daisy Lam-

bert," took third and fourth.

It was laughable indeed when, in the sixth event, Miss Eva Sinclair's "Tecumseh" refused in spite of all the efforts of his fair rider to head him out on the green turf where competition was at its height and galloped back to the stables.

Mat Cohen, commissioner of agriculture of Kentucky, was to have been the judge, but due to sickness was unable to appear. W. J. Sampson of Youngstown, and W. C. Dierks of Pittsburgh, were then secured. They judged the show to the unanimous satisfaction of everyone.

"Connoisseur" won three firsts and two seconds, "Fantanna" won one first, three seconds and one third while "Delawanda" won two firsts but coped the championship class making him the winner of the show.

All in all it was a mighty good show. It was the first time that the show has been held since 1916, and the boys of the Saddle and Sirloin Club can feel justly proud of their accomplishment. The show more than broke even so the club will have a little sinking fund for unforeseen circumstances next year. The Club is already looking ahead to next year's show and are anticipating making it better than ever.

Following are the students who had charge of the Show: Charles H. Sprague, president and manager; Otto J. Smith, entries; Geo. F. Henning, publicity; Geo. B. Arthur, programs; Sanford G. Price, awards; Robert H. Hall, grounds; Geo. Kreitler, tickets. G. F. H.

EARLY INCIDENTS IN OHIO AGRICULTURE

By CLARENCE M. BAKER, Ohio Experiment Station.

THE Rome Beauty apple, the big red apple which is so conspicuous in fruit markets, had its beginning in Ohio. In 1817 Joel Gillette of Lawrence County, purchased nursery stock from a Mr. Putnam and set the trees out near what is now the town of Proctorville. While setting the trees he found that one had sprouted below the graft and he gave it to his son, Alan-son, saying, "There is a democrat, you can have that." The tree flourished and in time bore such attractive fruit that George Walton gave it the name of Rome Beauty, while it was earlier known as Gillette's Seedling. Before the civil war orchardists began to praise the Rome Beauty as a fine keeper and attractive looking fruit. The variety was carried to the far west by Preston Gillette about 1850 when the gold excitement of California drew so many westward. It is widely planted in New York and other apple regions and some of the finest samples of the apple now come from California.

Co-incident with the development of the Rome Beauty is that of the Gallia Beauty apples. The Gallia Beauty apples originated as a seedling sprout from the Rome Beauty much in the same manner as the Rome Beauty was discovered. The Gallia Beauty apple is highly-colored and bids fair to even surpass its parent, the Rome Beauty, if it is adaptable to varying conditions. It is now thought by horticulturists that the Gallia Beauty will develop more highly-colored fruit in sections where the Rome Beauty does not show this characteristic.

The development of these two apples is to horticulturists what the work of Felix and George Renick of Chillicothe,

was to beef cattle growing in Ohio. Ohio has brought under the field of horticulture several valuable varieties of apples besides the Rome Beauty and Gallia Beauty, among them being the Ohio, Nonpareil, Ensee, Belmont, Bentley Sweet, and Stark.

AN EARLY OHIO FARM WRITER,,

Uncle Jeremiah Simple was one of the earliest contributors to agricultural journals in the United States—his articles appearing in *American Farmer* which was published at Baltimore, the early issues coming out in 1821. One of his articles, which is probably more interesting than any other, in his description of "How to Kill Rats." Jeremiah claims his rat-killing method to be a long secret in his family and was brought from France by his uncle. His method was as follows:

"Select a room in a house or barn and take everything out of it in order that the rats might have fair play; then sprinkle some Indian meal or flour one the floor and suffer no one to enter this apartment for about a fortnight, by which time the place becomes a general rendezvous of all the rats in the neighborhood, being sure that at this time the rats are at high glee. Then follow for a few nights by taking away all the food for the rats. Shortly after this period take a number of pieces of paper or parchment about three inches square, roll them into the shape of a cap or funnel and in the bottom of each squeeze a crumb of cheese, a little suet or butter, and around the edges on the inside of the caps put a little tar. These are strewed about the floor of their favorite haunt. Next morning arm yourself with a stick, march into the room and behold! there is each and

every rat hoodwinked in his nightcap—each one wanting the sweet morsel at the bottom of the cap thrust in their heads; the tar sticks to their ears, and how to get it off, they do not know. They are equally at a loss to find their holes to retreat to and one has nothing to do but kill them at his leisure.”

Jeremiah Simple always signed himself with the following salutation and postscript: “I am your friend and humble servant till death, and, I have a great many other things which I want to inform you but have to attend to my harvest.”

HOW THE EXPERIMENT STATION WAS LOCATED

In 1892 when it was found necessary to seek a new location for the Ohio Experiment Station since the land of the present campus of the Ohio State University was not adaptable to experimental soils work, a number of counties offered their assistance in the location of the Station. None of the counties seemed to present conditions so well adapted for the laying out of soil fertility plots as did the soils of Wayne County. Even at that the conditions at first seemed to be quite different than was generally expected.

When Director Thorne and the Board of Control of the Ohio Experiment Station visited Wooster they were piloted about over Wayne County by a number of business men driving high-spirited horses. The committee started out of Wooster, toward the north, driving four or five miles but finding no location that was suitable for the soil fertility work. They then drove east from a point of two miles north of Wooster coming into the fertile wheat lands of the county. They then turned south, driving almost to the town of Apple Creek, which is located about six miles southeast of Wooster, but in cov-

ering this territory no location was found that was suitable for the work. There was but one alternative left, that of returning to Wooster, for it was growing late in the day, and when the committee was coming over the hill where the Station is now located they noticed to their right a long sweep of country, fairly level and quite adaptable to the carrying on of plot work, particularly from the standpoint of topography. Director Thorne at once asked the business committee why they had not taken the Board of Control to this spot in the first place. In answer to this question the business men replied that a part of the land was regarded as the poorest land in the entire county. However, this was what the early Experiment Station officials were looking for, to lay out soil fertility work that would teach the greatest lessons in the following decades. The east tract known as the Emerich farm had been in the possession of renters for twenty-five years previous to its purchase by the Ohio Station in 1892, and was badly run-down. This farm, however, was selected for the fertility work because of its evident poverty.

EARLY IMPORTATIONS.

One of the earliest records that we have regarding the importation of cattle from England into Ohio speaks of a breed of Yorkshire cows having been imported on board the London and Liverpool packets to supply milk on the voyage—but these animals did not come under their proper distinctive name, having been generally classed with the Improved Short Horns. The record states that in England these cattle were kept in houses, fed upon hay, turnips, and brewers' grains. A cow is said to give in some cases thirty and even thirty-six quarts of milk per day.

FARM LABOR CONDITIONS

By THOMAS D. PHILLIPS, Farm Help Specialist for Ohio

THAT farm labor will be as scarce in 1919 as it was in 1918 is now an acknowledged fact. The heavy demand is for good experienced farm workers. The wages offered are about the same as last year, in some cases a little better.

The reasons given for the scarcity of help and the remedies for it are about as numerous as usual, including the greater production of the present year,

employers know it, hence the call for help through wide newspaper advertising in rural communities.

After the farmers lose their experienced help to the cities it is then recommended that they employ inexperienced help. This can be secured in limited numbers but the demands made by this class of workers upon the farmers becomes intolerable in some instances and there is little inquiry for their services.



THERE WILL BE A LABOR SHORTAGE AT HARVEST TIME

the number of farmers not yet discharged from the army or navy, the apparent lack of an inclination on the part of those who left the farm for other work to return to the farm, etc.

It seems reasonable that the increased production should call for more farm workers than in times of normal production, and it is well known that industrial employers give preference to farm raised men in their unskilled and semi-skilled work. The farm boys have been raised to do good work and such

If they are employed there is sometimes a feeling of unsatisfactory employment which grows rapidly with both employee and employer until it becomes necessary to terminate their agreement, and each then blames the other for his misjudgement in the deal and they separate with some ill feeling toward one another. This is an oft repeated story in all sections of the state.

Whenever farm labor is scarce the farmers who pay the best wages and

(Continued from page 598)

RECONSTRUCTION WORK IN AGRICULTURE AT CAMP SHERMAN

By CARL W. SHIFFLER, '16, Chief of Agricultural Division

"TEACHING wounded soldiers to become better farmers by practical methods" is the course employed by the Agricultural Division at the Bast Hospital, Camp Sherman, Ohio.

Organization of this division was effected on February 17th, as soon as it was learned that a number of the patients were interested in farming. The division has shown a steady growth from the start, having started with a mere handful of students and very little laboratory equipment. At the present time sixty-two are enrolled, a total of one hundred and thirty-three having been in the work at various times before receiving their discharge. Apparatus for conducting many kinds of agricultural experiments, in the laboratory, is now installed. The division has control of a considerable amount of modern farm machinery including a Fordson tractor, which is being used on a fifty-four acre farm adjacent to the hospital.

The aim of the division is to influence every man who enters the hospital, who was once a farmer, and who will not be physically disabled, to again be a producer. It also reaches the class that may become physically unfit to perform farm labor, and who desire to take advantage of the government's school offer to follow agricultural education work. Quite a large number of the men having farm experience have expressed their desire to further educate themselves for farm agents, farm managers, teachers, or for extension work. While in the hospital an excellent opportunity is offered to learn some of the fundamentals in farming that will serve as a prerequisite to a

college course. Then there is a certain class of men who have been in other lines than farming, who have become interested in farming, due to the efforts of the Department of Labor. If the present plan for establishing soldiers and sailors on land provided by the government materializes, a great number of the boys will take advantage of the opportunity to take up farming.

In order to reach all with an agricultural desire, and to give them maximum service, the work has been made very flexible. Brevity of stay at the hospital has been no barrier to entering the course. Boys with a very meager education have found the work helpful, as information is given so that all will understand. An idea of the practicability of the work for those who may be at the hospital for only a few days may be obtained from the experience of two men who were in the work for two days. Student "A" was not particular about entering any course since he was to be in the hospital for only four days. On the day that he entered a trip was taken to a river bottom corn and wheat farm which used sweet clover as a green manuring crop. The man in question had only known sweet clover as a weed, but after seeing the excellent results obtained expressed his intention to try out sweet clover as soon as he returned to the home farm. Student "B" entered the work manifesting a desire for horticulture, but on the day he enrolled special instruction was being given in tractor operation. This served as a stimulus to the boy and in two days he learned to operate the tractor very satisfactorily.

(Continued on page 602)

WHAT MIGHT BE EXPECTED OF EFFECTIVE CO-OPERATION IN OHIO

By H. E. ERDMAN, Assistant Professor of Rural Economics, Ohio State University

SO much has been written and said about cooperation that people are sometimes led to think of it as a panacea for all our marketing evils, for it is largely in connection with marketing that the subject of cooperation comes up. Cooperation has been defined as "the working together of a number of persons for some common end." This of course would include working together in an unorganized way as well as the more complex forms of cooperation. Mr. Lucius Wilson of the American City Bureau recently defined cooperation in a little different way. "To cooperate," he said, "is to live so that other people can work with you." However we define it, most of us have rather definite notions of some sort of working together when we speak of cooperation, though as a rule we seem to expect other people to adjust themselves to our way of thinking and acting. When cooperation fails, we say "they do this" and "they do that," implying very clearly that we have not gotten the point of view embodied in Mr. Wilson's definition.

The place of cooperation in our economic life and just what may be expected of it is certainly not fully understood by many people if we may judge by casual remarks one hears on the subject. Cooperation is perhaps most often mentioned in connection with the elimination of the middle man. If one thinks of the elimination of some particular middleman from the distribution of a particular group of commodities this conception is preferably right. In general however, cooperation is not and does not eliminate the middleman but substitutes in his place an-

other middleman. For example, suppose the farmers of a community decide to do their own grain marketing. They organize an elevator company and buy the business of one of the middlemen now handling the grain. They hire a manager—perhaps the very man whose business they have just purchased. The channels through which their grain passes before reaching the ultimate consumer are not changed by the fact that the local elevator has changed ownership. In some cases indeed an additional middleman is established, when, for example, the farmers form an organization, build an elevator, and hire one of their own number to operate the elevator for them. Such a manager, even though he starts out with other notions in mind, usually finds that he can dispose of the grain of his patrons more readily through the same channels as are used by his competitors.

If the idea of cooperation is carried far enough, as for example in Canada, where the farmers' elevator companies have been organized on so large a scale as to take the grain from farm to exporter, the cooperative organization may of course retain for itself the profits of the middleman who formerly engaged in this business, *provided the new organization continues to do business as efficiently as the displaced business would do it.* That is to say, the farmers' organization might save for itself the difference between what it will have to pay for men to do the business for them and what the same men would get if they were doing the business for themselves, under a competitive regime. To the extent that such an organiza-

tion is more efficient than the individuals would be if doing business for themselves competitively, there would of course be a still greater gain. The citrus fruit growers of California have realized very decided gains as a result of the increased efficiency which came as a result of the unification of their marketing system. Neither in the case of the Canadian grain growers nor of the California fruit growers have the middlemen as a class been eliminated. In each case however, some of the middlemen have doubtless been eliminated because of the uniformity of the distributive process which enabled a

time undertaken to do the buying for their members. Practically all the successful farmers' selling organizations are also engaged in the buying of supplies needed in the production of the products which its members have to sell. A relatively small proportion of these organizations ever attempt to supply all of the wants of their members. Rather, they leave the supplying of groceries, clothing, drugs, etc., to the existing agencies, limiting themselves in most cases to the furnishing of supplies needed in production.

In the light of what cooperation has done elsewhere what might we expect



THE HOME OF THE FARMER, THE ONE WHO NEEDS COOPERATION AND ORGANIZATION

smaller number of men to handle the crop.

Cooperative activity is usually spoken of "consumers cooperation" or "producers cooperation." In the first case consumers cooperate to buy more cheaply, either through cooperative buying clubs or the cooperative store. In the second case, the principal aim is that of selling cooperatively the various products produced by members. Producers cooperation in this country as in most cases include considerable consumers' cooperation; that is, organizations formed by producers to sell their products have at the same

of wider cooperation in this state? There would seem to be at least three ways in which cooperation should benefit the people of Ohio. First, in improving the product. One of the most important steps toward an improved product is that of grading. Grading a product makes it worth more because it can then be marketed more expeditiously and consequently more directly. A well graded product can go more directly and more readily to the particular consumer who needs that particular sort of product. Demand for a product is as diverse as human nature itself. There are people

who are willing to buy at a fancy price the finest kind of apples but who would not buy at any price apples of slightly inferior quality or appearance. At the other extreme there are people who will take apples of very inferior quality and appearance but who could not and would not pay the price necessary to get a better grade. Between these two extremes there are demand at varying prices for apple of almost every shade of variation, in quality or appearance. These different classes of demands are usually supplied by different dealers. The vendor of fruits in a fashionable district carries an entirely different line from that carried in one of the poorer districts, or from that carried in a moderately well-to-do district. Grading makes it possible for each one of these dealers to supply his wants more readily and more fully, thus making a better market for the product.

Grading also eliminates a considerable portion of the waste which ordinarily occurs in the movement of perishable products from producer to consumer. The inferior product is much more certain to be culled perhaps to be used in canning. In any case it can go more directly to the place at which there is the strongest demand for it, rather than to be shipped to one place and then reshipped to another, with consequently additional loss from re-handling as well as loss on freight paid.

Not only does well graded fruit move more directly from producer to consumer but it is undoubtedly true that more will be sold of a well graded and attractive product than of an ungraded, motley assortment of goods. Observe for example the difference between western apples and Ohio grown apples on our markets at certain seasons of the year.

Another way in which grading has a

tendency to improve the product is in the method of payment at country points. An individual buyer acting alone, can seldom pay for a product strictly on the basis of merit. Either it is either more trouble than he can afford to take or he is afraid of offending his patrons by paying one much less than another. Cooperative organizations on the other hand have very largely adopted the practice of making payment on the basis of quality, usually as determined by actual sale in the wholesale centers. When a difference is made in the price paid to the producer which reflects fairly accurately the actual difference in market value of the different grades of a product the better producers are rewarded for their greater skill, while the producers of the lower grade product will be penalized for their inefficiency or lack of attention to proper methods.

The second way in which cooperation could be of benefit lies in the possibility of improving marketing facilities and methods. For example, cooperative distribution, especially of perishable products usually give each independent shipper the advantage of larger scale distribution by making available during the shipping season a higher grade of marketing organization and skill than he could otherwise enjoy. The Marietta Truck Growers' Association for example, during the six weeks of its shipping season each year gets the advantage of an expert manager backed up by the sale organization of a large commission firm through which it deals. The Northwestern Apple Growers and the California Citrus Growers as well as the Florida Citrus Growers are likewise enabled to take advantage of a large and efficient sales organization which would in most cases

not be possible under the keen competition which might exist were all the buying done by smaller independent units.

Under the benefits of grading as given above there would of course result a vast improvement in the methods of handling a product in the various marketing channels.

Again through the right sort of co-operative organization producers of Ohio products can do much to stimulate demand for Ohio products. This line of endeavor would be especially effective if coupled with grading and standardization. Undoubtedly dealers are mainly concerned with profits resulting from the handling of a product. If they see greater profit as a result of handling Minnesota or Dakota potatoes than as a result of handling the Ohio product they do not hesitate to choose the former. A producers' organization would certainly be in a much better position to try to create a demand for Ohio products.

One of the difficulties of our present marketing organization is the fact that the producer of most farm products disposes of his product without having a very definite notion as to its true market value, for he sells to buyers who, through their business connections and trade organizations, are very well informed on market values. Producers' organizations might very well undertake to make available to its members all obtainable information which they should have in order to make the right decisions in selling their product. This is particularly true of those products which are sold to very large buyers and for which there is not always such a free and open market as is the case with our grains. I have in mind particularly such products as tobacco, wool, sugar beets, tomatoes for canning, and whole milk.

Along with this phase of activity there are many instances where both consumer and buyers would be greatly benefited by some means of caring for the surplus of perishables appearing on our markets at certain seasons of the year. Berries, for example, usually come on the market in gradually increasing quantities under the height of the season is reached. During the week or two there may often be a period when owing to unusual weather conditions so much fruit ripens that the markets are "glutted," as we put it. In other words there is more of the product than consumers will take at any but ruinously low prices. Both consumers and producers would be very much better served by some arrangement similar to that adopted by the Center California Berry Growers' Association in 1918. Whenever it became necessary to prevent losses from an oversupplied market a portion of the product either in out-lying districts or of the lower grade of products in other districts was diverted to canneries. As a result, much waste was prevented, much loss was averted, and a very desirable product was later placed on the market in slightly altered forms.

Finally cooperative business organization as a rule furnishes the nucleus for community activity of other kinds. This may seem rather idealistic but experience in centers where strong cooperative organizations are located would indicate that successful business organization is pretty sure to lead to a greater willingness to work together for general improvement in other lines.

That wheat middlings may be used economically to replace corn as a feed for swine is the opinion of W. L. Robinson, swine specialist at the Ohio Experiment Station.

NEW THOUGHT AND NEW MAN DEMANDED OF THE AGRICULTURAL COLLEGES

By JOHN H. GRATTAM

(Mr. Grattam is a farmer of Broomfield, Colorado, and is a college man.)

WHAT can the Agricultural Colleges do to turn out more big men, what new thought and what kind of a man is demanded of the Agricultural Colleges? These questions cannot be answered fully by me or any one else, but a life on the farm, where one studies and intermingles with other people has prompted me to make these assertions.

I hold in highest esteem the college people. They are not pretentious; they are not overbearing or snobbish; they are sincere honest people from the ordinary walks of life, a large number from the farms, and are striving to do the most good possible in the world.

The college has taught them scientific truths, most vital to our very existence, and which should be known by all the world. These men have become standard in ethics, and idealists in purpose. While they have the natural sciences and valuable qualities, they lack in the social sciences, in life affairs, and many live too much in a world of their own.

Of the many agricultural colleges only three or four of them have presidents who are products of the same kind of a college. In state legislatures, in Congress, and in positions of influence we find few agricultural men and few farmers. This should not be, the farmers should be better represented and here is an opportunity for the agricultural college men to perform a service. However, such men as Dr. T. N. Carver, and Uncle Henry Wallace had mature experiences on the farm and were products of the Universities. We want more men like them.

Some men who have become conspicuous in agriculture have failed miserably when they tried to run the farm. The business man considers the college man impractical, and fit only to teach boys. The lower classes consider him stuck up because they don't know him. It is for the men of the universities to dispel this thought and to make all trust in the college man.

The urbanite from a business standpoint is interested in the greatest possible production, and hence cheaper living. Thus he profits thereby. The farmer has learned that great production means lower prices, and much less returns to himself. Farming now yields a lower return on the capital invested and energy expended than of any business I know. To make rural communities what they should be, there must be more money in farming, and more attractions on the farm. It is only when a man has money in his pocket that he will install modern improvements and not when he has a mortgage to carry. If the agricultural colleges are to continue their slogan of production they are doing the thing which is building urban life and retarding rural life. The government does not apply such stimulating influence to any other business. All business can more easily and does curtail its production or set a price on its output than can farming. These principles involve part of the new thought for the agricultural colleges to solve. Are they for the farmer or for the other fellow?

Agricultural college teachers are more rural than urban in their stand-

ards yet their environment is quite decidedly urban. They and their associates are consumers of farm products. The chances are that they haven't a dollar invested in farming. When I say that the head of every agricultural college as well as most of the teachers should have spent at least two years on the farm with their families under average conditions, I assert myself thoughtfully and sincerely. They and their families should live the full and complete farm life, mix with the farm people and make all they have to spend off the farm. The fact that they were there as boys does not half answer the question.

The world needs the farmer and the college man for the things they know, for their character and the things for which they stand. The college and college man will gain in influence as the farmer gains influence. All the people connected with agriculture should become a greater factor in the affairs about them, and therefore the teachers should know more of these affairs. The teachers should be in sympathy with the farmer rather than the city. The cities have proven their capability of taking care of themselves. These are some of the duties of the college man.

The first principle of a big man is the desire to do good things. He should be able to reason. I wonder if any professor ever started mind cleaning with a class of young people. I mean cleaning their mind of prejudices, erroneous ideas, emotional influences and other stuff that interfered with clear thinking, and then commenced with a system of reason test, and culture.

Judgment, the thing that the business man says, most college men lack,

does not seem to be developed by any study in the college curriculum.

Life is a study unknown in college, but is quite well understood by the man of the world. This might be embodied with something we could call psychology written to fit the everyday world and people as we find them. Then something in ethics to lay the higher standards is essential. Then economics good and strong as it applies to the farm. There would have to be some elimination from the course as it now stands. They used to tell us mathematics was a brain stretcher. Now comes another and cites the fact that most of the renowned mathematicians were most simple minded. One great fundamental truth well understood is worth more than all the technique one can memorize in a week. It is just as important in obtaining an education that we get some things out of our mind as that we get some things into it.

So few people can think. One orator says "the dairy industry is facing destruction; thousands of cows are being sold at public auction." They are not being slaughtered but changing ownership. That does not mean destruction.

Another says, "give the farmer money at lower interest rates and we will people the farms with poor people. What better off will the farmers be if such good farmers as Smith and Jones sell their farm to some one carrying a heavy indebtedness? If cheap money creates a demand for land will it not raise to the purchaser all it saves him in interest? If cheap money increases production will it not lower the returns to all the farmers?

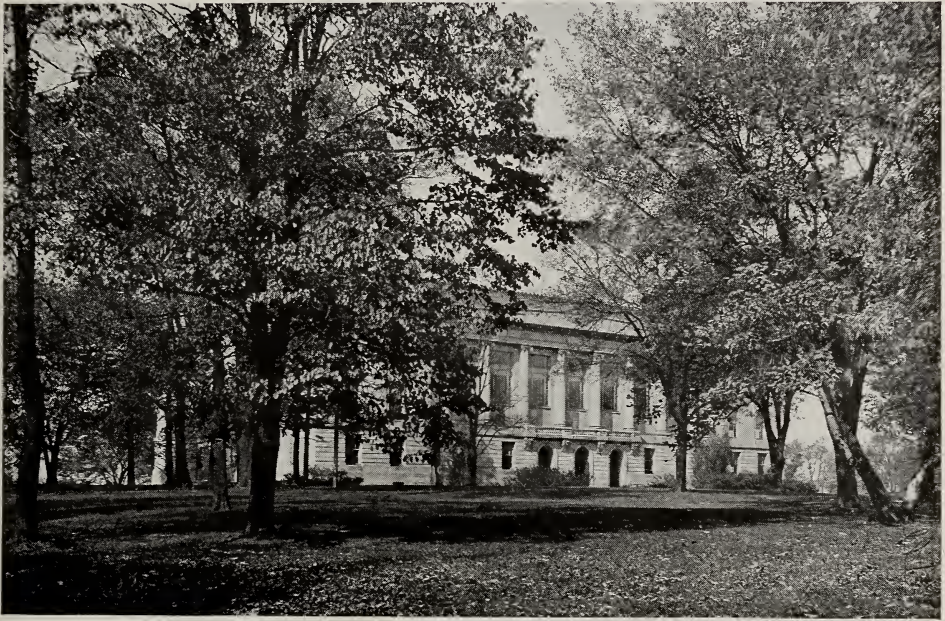
Another says to the farmer, "behold the home markets we have built for you," yet the price center remains in Liverpool. The profit to the farmer is

no greater than without the home market.

In the cities almost every one knows something about practical psychology. It will not work anything out of the soil, but will work wonders either for good or evil with people. The farmer needs it for defense if nothing more.

After a most interesting discussion by a college man to a city audience, I have heard these sentiments expressed. "These farmers are getting rich in the

farm should be made a place where the best kind of people want to live. There should be a more complete rural life. Most energetic people whether college teachers or farmers are attracted to some extent by the financial return for their efforts. The farmers' market is a world market of largely perishable products, the production of which commences from one to four years in advance of sale, without any knowledge of the future, without ability to



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process of robbing us. If they had brains enough to take advantage of the great opportunities offered them by the college how much cheaper we could all live." The city papers are constantly expressing such sentiments. What effect will this have not only on the standing of the farmer but on the price people are willing to pay him.

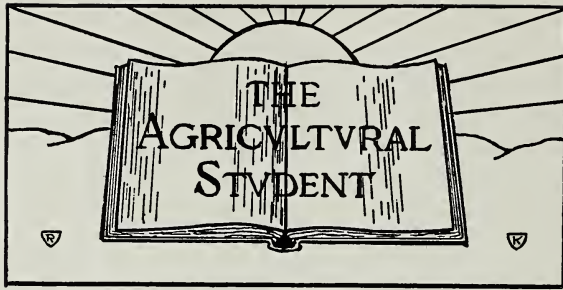
To me city standards and ways will not make the best for this world. Rural standards and rural ways should be given greater prominence. The

combine, influence, or curtail price or production.

He is subject to the supreme laws of supply and demand, and the hazards of climate and insects.

All farmers must rise and fall together in so far as markets are concerned. Yet there is no use denying that the farmer is in competition with the city, and every other industry, because other people get the wealth of the world that is rightly due him.

(Continued on page 604)



OF

OHIO STATE UNIVERSITY

A Medium for Exchange of Ideas Between College and Farm

Published by the Students in the College of Agriculture.

Established 1893.

Subscription Price, One Dollar the Year.

Entered at the Postoffice at Columbus, Ohio, as Second Class Matter.

Member of the Agricultural College Magazines, Associated.

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THE TWENTY-FIFTH VOLUME

With this issue the AGRICULTURAL STUDENT completes the twenty-fifth year of its history. During this quarter of a century the magazine has passed thru many trying circumstances but none to compare with those of the past year. In the first place the elected editor for this volume was called into the service early in the fall leaving the business manager to publish the September issue by himself. A new editor was appointed and the October issue was put out in the usual way. Another call to service took both the editor and the business manager away. At this point the faculty came to our rescue, taking the responsibility of publishing the magazine until the students were again able to resume the work. The November, December, January, and February numbers were published by the faculty staff. With the war over many students returned to school this semester, making it possible for the student staff to take their publication back beginning with the March issue. Since then strong efforts have been made to get the organization back to a normal basis. This has been hard to accomplish, since everything has been unsettled and many of the men are carrying unusually heavy schedules in order to make up lost work. In spite of these handicaps a temporary staff was worked up from

which the leaders for next year have been selected. George F. Henning, who has been closely connected with the work of the STUDENT for the past three years, has been chosen editor. George B. Arthur will be business manager. The hopes of the present staff are that these new leaders may pilot the magazine to a position of service and degree of success that will surpass all past records.

Considering the many handicaps under which the present volume was published it has an exceptional record. THE STUDENT was one of the few publications which did not suspend publication during the war. Our war volume is unbroken. To those who helped to make it so we give our sincerest thanks and the best mention. We are indebted to the faculty for their generous assistance during the "dark" period; to the extension department for photographs and cuts used in illustrating various articles; and to the professors and county agents for contributing articles. May this cooperation between the various agencies at the college continue to exist. With this condition present the STUDENT can continue with increasing success and develop into a stronger medium of exchange of ideas between faculty, students and alumni, besides being a medium for the exchange of ideas between the college and the farmer.

STOP, READ AND THINK

Is the Agricultural College man performing his part in life as he is expected to do? Has the agricultural college turned out the man that will make a valuable asset to society. These are questions that are facing students and the agricultural colleges every day. Are we as students doing all that is expected of us or are we taking things easy and slipping by. These are facts that are coming from the country to each and every one of us. Why is it that many of the agricultural college men fail to really help the agricultural population. Is it due to the man himself or is it due to the course he is receiving here while in school? Is the agricultural college by telling us how to grow larger crops, breed better livestock, farm more efficiently, and at the same time to encourage a back-to-the-land movement really performing the duty that it should? In doing this is it increasing production, increasing the number of farmers and at the same time lowering the price so that in the end the farmer is not receiving any more than when he was farming less efficiently? Is this true? Stop and ask yourself and thrash it out to your own satisfaction.

We do not say that the above is absolutely true but Mr. Grattam of Colorado, a college graduate, says the society of today is demanding a new man of the agriculture college and also a new thought. He is living out on the farm and has been thinking along different lines than the most of us. Is he right or wrong? Does he agree with you and your ideas? Read his article in this issue of the AGRICULTURAL STUDENT.

WHAT THE SENIORS WILL DO

ThurLOW G. Vickery, who has specialized in vocational agriculture, expects to go into Smith-Hughes work as soon as his duties are completed at the University.

Ralph A. Howard expects to return to the home farm at Delta, Ohio. Howard majored in Animal Husbandry.

Robert G. McMurray will attend summer school intending later to go into Smith-Hughes work.

Charles R. Runk, also a specialist of vocational agriculture, expects to enter the Smith-Hughes field.

Jolly R. Royston is going back to the farm in Leesburg, Virginia. He did his extra work in the Soils and Animal Husbandry Departments. Royston made Sigma Xi last semester.

Lewis E. Barb has so arranged his work at the University that he has qualified himself for a Smith-Hughes instructor and will enter that field.

James G. Polk fitted himself for Smith-Hughes work and expects to teach after graduating or come back next year and take a master's degree.

Geo. F. Johnson has accepted a position on the editorial staff of the *Indiana Farmers' Guide*, and will take up his new duties July 1. Johnson was editor of the AG. STUDENT this past year.

Joseph R. Bullard, a specialist in Animal Husbandry, will go back to the farm at Mechanicsburg and follow livestock and general farming.

Emmett B. Saunders has accepted a position as instructor in Agriculture at the Slater State Normal and Industrial School, Winston-Salem, North Carolina.

Otto J. Smith majored in animal husbandry and minored in vocational

agriculture. He will go into Smith-Hughes work.

Robert G. Bruce specialized in animal husbandry and will go back to the farm and engage in hog and poultry business.

John S. McCoy, a specialist of the soils department, will return to the farm this summer and help manage the home farm.

William F. Burbank majored in Animal Husbandry and expects to accept a position as Farm Manager.

Floyd A. McClure expects to go into Smith-Hughes work. McClure received his A. B. degree here last year and specialized in vocational agriculture this year.

Robert H. Crehore is going into the lumber business with his father at Elyria, Ohio. He specialized in soils while at the University.

Reed B. Dunn received his A. B. degree here last year and will go back on the farm at Deshler, this state, for the summer, expecting to go into Smith-Hughes work later.

Earle D. Hughes will go into Smith-Hughes work. He specialized in vocational agriculture.

Dean P. Evans is going on a farm at Greenfield, this state, and follow general farming and livestock as a sideline.

Sanford G. Price will return to Woodville and go into business with his father. Price specialized in Soils.

Walling Corwin is going into Smith-Hughes work. He specialized in vocational agriculture.

Daniel H. Byers will go to the farm and take up general farming. Byers received his A. B. degree from Ashland College, and took a general course in agriculture at Ohio State.

(Continued on page 596)

Home Economics Department

HISTORY OF HOME ECONOMICS MOVEMENT

By ELIZABETH RICHEY

(This article was edited by Lois Lampe, '19, from the report of a year's investigation of the subject by Elizabeth Richey, who is a graduate student in the Department of Home Economics at Ohio State University.)

BEGINNING HOME ECONOMICS

The beginnings of home economics were made when mankind became settled rather than nomadic, and when the question of food supply and preparation began to demand the attention of women. For generations women have used the basic principles of home economics in their work, but it is only within recent years that it has been recognized as a science, and as a vital part of woman's education.

THE RISE OF TECHNICAL EDUCATION

In the United States girls were first admitted to elementary schools in 1784, and it was not until years afterward that they were admitted to the higher schools and universities. About the middle of the nineteenth century, education began to lose some of its formal and classical aspects, and became more technical in nature. This tendency was true to the training of women as well as men, and out of it grew home economics.

HOME ECONOMICS BECOMES A PART OF THE EDUCATIONAL SYSTEM

In the West, household economy gained its entrance into the system of education through the Agricultural Colleges, and in the period from 1870 to 1900, a number of strong departments were established. About the same time home economics was recognized in the East mainly through the

cooking school and in the industrial school.

DEMAND FOR TEACHERS TRAINED IN HOME ECONOMICS

After 1870, sewing classes were introduced into the public schools of many the large cities, although special teachers were not employed until cooking classes were introduced. By 1885, there was such a great demand for teachers of home economics that specialized training schools, such as Pratt and Drexel Institutes were established.

COLLEGE AND UNIVERSITY CREDIT GIVEN IN HOME ECONOMICS COURSES

Home economics has made rapid advance in the elementary and secondary schools, also in colleges and universities. However, it has won a place for itself, and state universities, colleges, normal, secondary, and elementary schools now have more or less extended courses in home economics.

THE EXTENSION SERVICE

Extension work had its beginnings as early as 1850 when fair associations were organized for the purpose of holding state fairs and agricultural shows. With the passage of the Smith-Lever Bill in 1914, a permanent appropriation was made for carrying on extension work, and laid special emphasis on the work among farm women. Home Economics extension began as lectures before clubs, and with the organization of girls, bread baking, canning, and sewing clubs. The club work had been going on in some states under private leadership, before the passage of the Smith-Lever Bill, but when paid leadership became available, this branch of

extension work received great impetus.

EXTENSION SCHOOLS

Besides the advising work among the farmers and the boys' and girls' club work, extension schools have been held all over the United States. In conjunction with these schools, general lectures were given before women at farmer's institutes. In Ohio, extension work has also included some instruction given to teachers being trained in the county normal schools.

THE HOME DEMONSTRATOR

The work of the home demonstrator is an outgrowth of the general extension service. At present there are more than 2,000 women employed as home demonstrators in the United States. In many states the home demonstrator is employed under the War Emergency Act necessitated by the need for greater farm production during the war. Efforts are being made to make this type of emergency work permanent. There are at present over 1,600 women employed as home demonstrators under this appropriation.

During 1918 home demonstration work in cities was opened. The salary of this office is met by the state and federal fund just as that of the county demonstrator, but the city maintains office facilities and publicity supplies. The worker in this field cooperates with the board of education, and the chamber of commerce in the direction of local problems. Generally every ward and school district is represented.

THE SMITH-HUGHES SCHOOLS

Another educational field in which home economics is taking a leading part is in those schools where instruction is given under the provisions of the Smith-Hughes law. This bill became effective in 1917, and under it funds were provided for vocational education in sec-

ondary schools. Each state received of the fund according to its population. An additional sum was set aside for the maintenance of evening classes in home economics.

SCHOOL LUNCH-WORK

School lunch-work in the United States is a branch of home economics extension work. One-half of the states have published bulletins to aid in the establishment of rural school lunches, and two of the states, Ohio and Illinois, now have school lunch specialists. The school lunch specialist gives aid upon request to home demonstrators, school superintendents, and teachers. The work has been carried on in one room rural schools, centralized and village schools, county normal schools, and since the advent of the city home demonstrator, in city schools.

THE HOME ECONOMICS MOVEMENT IN FOREIGN COUNTRIES

The trend toward vocational education has been apparent in foreign countries as well as in the United States. About 1850 the home economics movement began in England, France, and Germany, and its development in all the civilized nations has gone on in practically parallel lines. Variations which meet the particular conditions of the different countries and peoples may be found, and the advancement of the movement has been retarded or augmented according to the general progress which each nation has made.

SUMMARY

The principles of household economics have always been in existence, but it is only within the last sixty years that the Science of Home Economics has been recognized. When all the different phases of the movement are considered, we find that it includes much that is essential to the welfare, maintenance, and progress of human life.



HOME ECONOMICS Alumnae Record

Miss Thurza Teegarden, '18, and Miss Ruth Ford, former secretary in the Department of Home Economics, have opened a lunch room at 1995 North High Street, Columbus, Ohio. Much interest is being shown in the project.

Miss Lelia McGuire, '14, instructor of foods at Iowa State University, returns in June for her Master's Degree in this department.

Miss Margaret Lawrence, '15, and Miss Elizabeth Bancroft, '15, are teaching in the Domestic Science Department at the High School of Commerce, Columbus, Ohio. Miss Lawrence was formerly connected with the Department of Home Economics at the University, and Miss Bancroft has held her present position since her graduation.

Miss Lula Billman, '11, is city home demonstrator at Dayton, Ohio.

Miss Mary Dalton, '14, is head dietitian at the Base Hospital at Fort Sheridan.

Miss Mary Alice Swope has lately returned from overseas, where she served as head dietitian. She was formerly dietitian at Cincinnati City Hospital.

Miss Margaret Knight, daughter of G. W. Knight, Dean of the College of Education, has lately returned from overseas. She went to France with the unit from Northwestern University, as interpreter and assistant dietitian. Miss Knight is a graduate of Vassar College, and has taken some work in the Home Economics Department at the university.

Miss Florence Nolan, '18, has been doing quantitative work in the chemical laboratory of the Grasselli Chemical Works at Cleveland, Ohio.

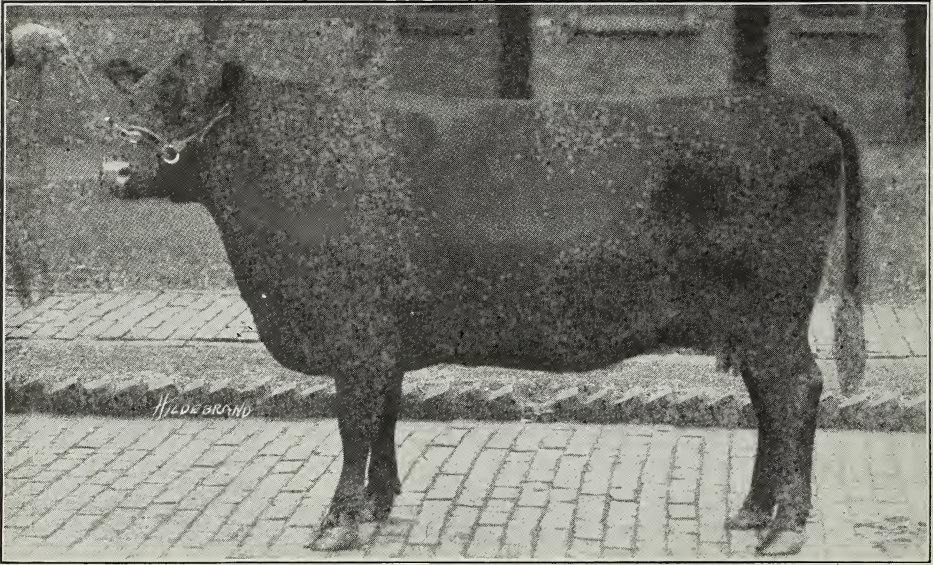
Miss Marie DeVere, '18, will take charge of the foods work at the University of West Virginia during the summer session. She will superintend the laboratory work in foods there, during the coming year. She has previously been an assistant in textiles in the Home Economics.

Miss Stella Milburn, '18, is employed by the State Board of Health. She is at the present time stock-food and drug chemist, and does mainly analytical work.

Miss Lucy Guard, ex-'20, has been a student in the Department of Home Economics at the University of Cincinnati during the past year.

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The Only Dual Purpose Breed
DO YOU KNOW THEM?



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Champion 2-Year-Old, 1916 International

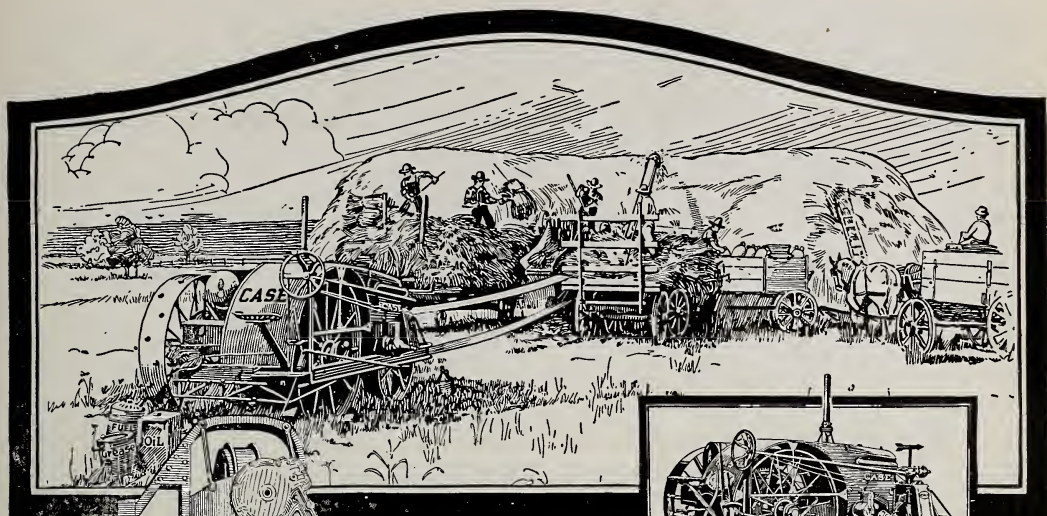


The Glen Red Poll Herd

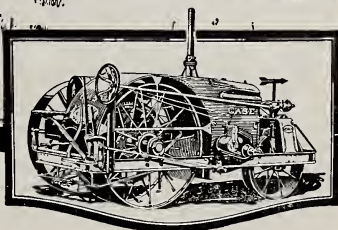
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The Case 10-20 is praised as widely for its adaptability to all belt-work, as for its use in plowing and other field jobs. For five years it has proved its superiority on thousands of farms, not only throughout this country, but all over the world. Though rated at 10-20 horsepower, it can develop at least 20 per cent. more.

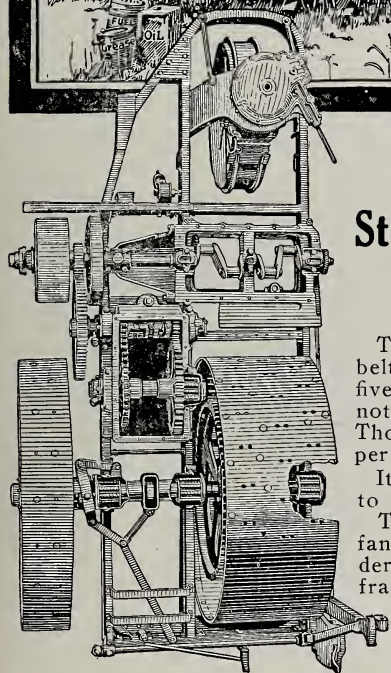
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Ask any Case dealer for a full description of the Case 10-20, or write to us direct. A careful study of all its specifications will show you its proven superiorities. It is a sound, practical tractor, worthy of the endorsement of a concern famous for its success in building power farming machinery of the highest grade. Investigate at once.



Chassis of Case 10-20



J. I. Case Threshing Machine Company, Inc.

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The closing of the market for barley in the brewing industry in the near future, as well as the present high price of corn, is resulting in many inquiries concerning barley as a dairy feed, says C. H. Eckles, new chief of the dairy husbandry division at University Farm, St. Paul. Barley has long been a standard part of the dairy cow ration in north Europe and has been fed to some extent in parts of America. The reason it has not been used more for feeding purposes is that the brewers wanted it and were willing to pay enough for it to keep it out of the feed trough. As a result corn has been the cheaper feed, but barley will undoubtedly be fed to a much greater extent in the future.

In feeding value barley is slightly below corn, but so little that for all practical purposes, it should be put in the same class and considered as the equal

of corn pound for pound, adds Mr. Eckles. At current market prices barley is cheaper than corn. Barley supplies 79 pounds of digestible food to the hundred pounds and corn 86 pounds. With corn at \$1.40 a bushel, a pound of digestible food in corn costs three cents. With barley at 85 cents a bushel a pound of digestible food in barley costs two and a quarter cents.

Barley for cows should be fed ground and may be used with advantage up to half the grain ration. A good ration, containing barley, would be as much corn silage and clover hay as the cows will eat up clean and a grain mixture of four parts barley, two parts wheat bran, and one part oilmeal or cottonseed meal. The grain mixture should be fed at the rate of one pound to each four pounds of milk produced by a Holstein or two to each three pounds produced by a Guernsey or Jersey.

16% Acid Phosphate

*Nitrate of Soda, Potash and
ready mixed fertilizers of
various grades.*

Prices always lowest. Mechanical condition of goods guaranteed and prompt deliveries made.

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A Lesson in Dairying

SOPHIE'S AGNES was the first Jersey cow to produce 1,000 pounds of butterfat in one year. In doing that she consumed 1,825 pounds of Buffalo Corn Gluten Feed.

The Buffalo Corn Gluten Feed was nearly $\frac{1}{3}$ of her total grain ration of 6,205 pounds, and was the *only* high-protein concentrate she received. Her butterfat was worth \$314 more than all her grain feed cost.

To study the ration Sophie was fed is to learn much about dairying.

She had her Buffalo Corn Gluten Feed straight through the year, winter and summer.

Ask us for sample, literature, and how dairymen are making money feeding Buffalo Corn Gluten Feed.

**CORN PRODUCTS
REFINING COMPANY**

New York
Chicago

Please mention THE AGRICULTURAL STUDENT when writing advertisers.

HINTS TO AG. STUDENTS

(Continued from page 579)

The changes in the personnel of the faculty will not be many either. Of course, there will be some changes as there usually are. Just what changes will be made is hard to state at this time as the plans of some of the departments have not been completed. Some who have been absent on leave for War Service will return to take up their duties again. Some will leave us for positions in other places, and a few new men will come to take their places.

WHAT THE SENIORS WILL DO

(Continued from page 588)

James A. Howenstine and Wendell P. Miller majored in Agricultural Engineering and have formed the Agricultural Engineering and Service Company. They will be located at Columbus.

John R. Herman, a horticultural specialist, will go to California and engage in horticultural work in the citrus industry. He expects to enter the University of California next year.

Theodore J. H. Wiegand majored in horticulture and expects to engage in work at Pittsburg.

George K. Fulton will take up truck farming at Sidney, this state, until fall, when will go to Cuba. Fulton majored in horticulture.

Carl F. Roth will return to his home in Cleveland where he will engage in fruit marketing. He specialized in horticulture.

Elmer Klein majored in horticulture and will attend summer school, starting work on his Master's degree in Botany.

Herschel F. D. Pinkley majored in dairying and will return to the farm.

MEADOW HOLM FARMS

CHESTERLAND, OHIO
PETER SMALL

TIFFIN, OHIO
DR. H. B. GOODING

World's Greatest 4 Generations
Semi Official

AVERAGE MILK 25675.5
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CHESTERLAND, OHIO.

You do not have to go out of Ohio for the best yearly record Holstein Cows in the world...Our new sire FINDERNE PRIDE FAYNE, a son of the highest living yearly record cow in the world. FINDERNE PRIDE JOHANNA RUE, 28000 lbs. milk, 1470 lbs. butter. Bull Calves for sale.

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The O. I. C. Swine Breeders Association

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Respectfully Solicits the Patronage and Support of Every Breeder of O. I. C. Hogs

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There is no other O. I. C. Record and as a breeder the prestige you secure from membership in the official organization of the breed is worthy of your best consideration.

The annual volumes printed after you join are sent to you free save the postage which amounts to about 20 cents yearly.

Origin and History of the O. I. C. will be promptly mailed to you on receipt of post card request. It tells you all about the origin and history of this famous breed of swine together with many other facts of interest to hog breeders. In this booklet you will find the by-laws of the association; the score card; last revised list of members and their post-office address; hints to breeders. etc., etc.

Write now for this interesting free book.

Address O. C. VERNON, Secretary,
Goshen Indiana.

LABOR CONDITIONS

(Continued from page 577)

provide the best places for the help to live, naturally secure the best help. This gives opportunity for considerable selection and the type of men secured usually stick to their jobs better.

The problem for solution, that is thus before the farmer who wants to employ good help that is reliable, presents itself in two phases—that of paying satisfactory wages and that of providing satisfactory living conditions.

Prospective farm hands will invariably and quite naturally look at the place that is provided for them to live and at the wages they will receive. Often the latter is satisfactory but the former is not and vice versa.

It seems that many farmer employers have not analyzed this problem fully and many are in need of help today in order to carry out their production plans who can not find men to work under the conditions as they are.

There are many farmers who have

the control and operating management of more land than they can operate with their own labor. They find it necessary to look for additional man labor to profitably operate the extra land. Such labor is usually not employed unless it is fairly well established that it can be used at a profit to the employer's business. No employer will hire extra labor and pay for it out of the capital investment of the business, for such a practice would destroy the business. The labor employed should help the investment produce enough to pay all the proper operating expenses including labor at a fair wage and a reasonable income on the investment. The employer of extra farm labor must therefore arrange and organize his business so that he can compete in the production of farm products and make it profitable.

Full year employment and a good place to live attracts good men and tends to keep their families satisfied.

(Continued on page 600)

Moline System of Power Farming



MOLINE UNIVERSAL TRACTOR

By using the Moline-Universal Tractor and Moline Tractor implements, you can farm more land, better, easier and at less expense than you ever did before. Farmers in all parts of the country are now making more money through the use of the Moline-Universal Tractor and Moline Tractor Implements. Unsolicited testimony from owners is the best proof of satisfactory performance. Read the following expressions from Moline owners:

"The Moline-Universal has done for me what two men and twelve horses would have done at less expense than one man and six horses." Jesse L. Bonsall, Scotia, Nebr.

"It saves me the price of seven horses. It has created a greater desire for farming." Arthur Weis, Reddick, Ill.

"It has saved me hiring one man and keeping five extra horses." Henry Hilbert, Charlotte, Ia.

"Earned me \$1,700 in 60 days and established me in a good paying business." C. J. Hawley, Sergeant Bluff, Ia.

"It has accomplished just 100 per cent more than I expected it. As a hill climber there is no equal." O. H. Barkledge, Washington, Mo.

"I can't work horses any more as I do my work so much easier with the Moline-Universal." Henry Shatz, Sheridan, Ore.

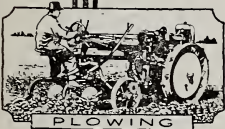
"My wife and I have farmed this year by ourselves—something we never did before." H. E. Hartzell, New Weston, Ohio.

"It has saved me \$600 in labor this season." Ira Brinkman, Shades, Ind.

"I accomplished about three times as much as I would had I not had the Moline-Universal. For me to go back to horse power would be the same as doing without my automobile." F. N. Miller, Marysville, Mo.

If space would permit we could fill up this entire paper with letters from satisfied owners of Moline-Universal Tractors. Write for full information and large list of farmers who are making more money with less hard work by farming the Moline way.

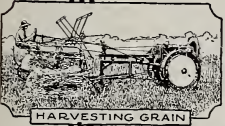
MOLINE PLOW CO., - Moline, Illinois
"Moline Service Satisfies"



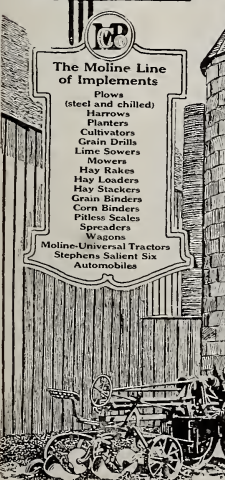
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MERIDEL FARM DUROCS

The Popular Kind.

MERIDEL FARM, BLACK LICK, OHIO

Where Good Sows and Good Boars Meet

On East Broad Street, 9 Miles East of Columbus.

2 Miles from Black Lick.

3 Miles from Reynoldsburg.

LABOR CONDITIONS

(Continued from page 598)

The employee on a farm or in a factory becomes dissatisfied with his work if conditions are not satisfactory for his family. He is susceptible to the same desires and influences that other men are susceptible to and can not do the best work or give the best service under poor conditions.

The United States Department of Agriculture working through the Agricultural Extension Service in the several states is urging farmers to provide good houses for their help and to improve many of the houses that are now in bad condition for people to live in. This advice has been followed in some sections because the farmers have come to realize that good farm workers appreciate having a respectable place in which to live.

Many young men and women have left the farms and been living in homes having modern conveniences, and they

hesitate about returning to the country to live in homes not so equipped. Quite often good farm help refuses to go to the country because of lack of these things.

Some farmers object to farm help that demands modern living conveniences equivalent to those found in cities where they are the rule rather than the exception, but their objections do not change the demands.

These two phases of the farm labor employment problem is before the farmers today and its solution is in their hands. As the demands from farm laborers increase it will be up to the farmers employing them to work out the problem of meeting the demands and increasing the efficiency of their business to offset the increased costs of operation. The demands will continue to grow as we continue to raise the standards of living in rural communities throughout the state and the problem will be constantly with us.



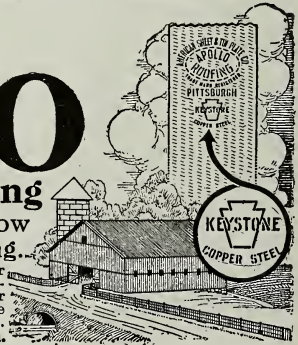
Apollo

Full weight—
Galvanized—

Roofing and Siding

Both farm and city property owners need to know the absolute safety and service of metal roofing.

APOLLO-KEYSTONE Galvanized insures durability and satisfaction for all forms of sheet metal work, including Culverts, Tanks, Flumes, Spouting, Garages, etc. Sold by leading metal merchants. KEYSTONE Copper Steel is also unequalled for Roofing Tin Plates. Look for the Keystone added below regular brands. Send for free "Better Buildings" booklet. AMERICAN SHEET AND TIN PLATE COMPANY, Frick Bldg., Pittsburgh, Pa.





What We Found Out

Health Conditions a Big Factor

Gentlemen. "We have found that the value of a dairy ration is not always in milk production alone. The health condition of the herd is a big factor. Our experience in feeding SCHUMACHER and BIG "Q" DAIRY RATION is, that we not only get bigger milk yields, but most gratifying health conditions. Even on short and long time officials tests, our cows stand the strain wonderfully on these feeds. As evidence of our yearly results we have just received word from the Michigan Agricultural College advising that our herd is one of the Ribbon Prize Winners in the State on production for 1918. We also feed SCHUMACHER FEED extensively to hogs, horses and young cattle with splendid results."

WAH-BE-ME-FARMS, White Pigeon, Mich.
Breeders of Pure Bred Holsteins, Poland Chinas and Berkshire Hogs.

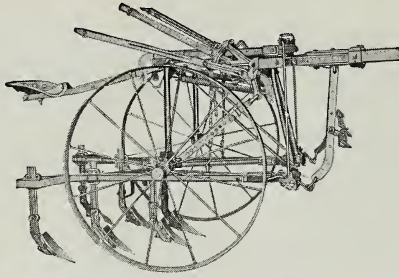
SCHUMACHER FEED AND BIG "Q" DAIRY RATION

Wherever SCHUMACHER FEED and BIG "Q" DAIRY RATION are used you will find a herd that produces to the satisfaction of the owner. Holsteins—Jerseys—Guernseys—cows of every breed, alike testify to the value of these result-producing feeds. 32 of the World's Champion Dairy Cows have made their wonderful records with the aid of these feeds.

Fed in combination they make an ideal ration—one which you can readily regulate as to amount of protein and carbohydrate content to suit the needs of each individual cow. Their palatability, high digestibility, variety and bulk, induce cows to eat heartily and produce heavily. With SCHUMACHER FEED as the maintenance part of the ration and BIG "Q" as the protein part, you have a ration that will give you maximum long time milk production and ideal health conditions in your herd. Could you ask more? A few weeks trial will convince you. Order from your dealer. If he can't supply you, be sure to write us.

The Quaker Oats Company Address
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Parallel Gang Construction insures thorough and evenly cultivated ground.

The seat bar guide mounted on rollers and ball bearings makes the Oliver the easiest to operate. This guide, automatically forces the cultivator up grade on hillsides.

Perfect depth control. Frame always balanced. Horse lift. Complete gang equipment.

For more information call on an Oliver dealer or address

OLIVER CHILLED PLOW WORKS

Plowmakers for the World

Columbus, Ohio

AGRICULTURE AT

CAMP SHERMAN

(Continued from page 578)

The division does not wait until a patient is on his feet before starting to work. The regular Ohio State University, College of Agriculture Correspondence Courses are given to those in bed. As soon as one lesson is finished a student answers a set of questions accompanying the lesson and is graded before taking up another lesson. These courses are very popular with the boys. Rope splicing and knot tying, germination tests, and farm accounting work are also offered to the bed patients.

As soon as a man is able to leave his ward, he may attend the regular classroom work. Morning and afternoon lectures are given on various farm problems, supplemented with laboratory work. All who are able to leave the wards are required to take the lecture work, and as much of the labora-

tory as his condition warrants. If unable to do outside work, he may perform experiments in the laboratory. If able to work outside he will assist in the planting and care of shrubbery, arranging flower beds, seeding lawns, and in field and garden work. Trips to nearby farms are taken each week and prove very profitable. The best farms of the community are visited with the instructor and an opportunity to study successful farming at first hand is given. The Caldwell Stock Farm is located in this section and is cooperating with the school in showing the boys what can be done in producing prize winning cattle.

At no time since the organization of the division has there been a lack of students who can be used in helping to instruct others. Men who have taught agriculture in high schools, or who have specialized along certain lines, enroll in the work and take great de-

light in helping others less fortunate. One man in particular who was an expert landscape gardener prior to entering the service, has proven very valuable to the division.

An excellent farm library and reading room containing all the leading Middle West farm papers is an important feature of the school.

Great results are being obtained, and those in charge feel that a great work is being accomplished.

OPPORTUNITIES OF THE

AG. COLLEGE GRADUATE

(Continued from page 570)

writers is doubtless partly responsible for this. Students entering agriculture because of such a propaganda are rarely in close sympathy with the cause. Such men often have a bad influence in the institution and usually do little credit to it when they leave. Agriculture is in tremendous need of sane, sensible, well trained men with sincerity of purpose, with genuine agricultural sympathies and with a willingness to work without fagging. Great opportunities await such men.

Wheatfield Day, an annual event scheduled at the Ohio Experiment Station, Wooster, for Ohio farmers to demonstrate the benefit of fertilizers and manures in growing wheat, has been set for Friday, June 27.

The wheatfield day meeting will be preceded by a conference on June 24 and 25 of soil specialists from all the experiment stations in the eastern and middle western states.

Wheatfield days are being planned by the Ohio Experiment Station to be held on many of the county experiment farms in Ohio so that local farmers may have the opportunity of seeing results in experimental wheat growing in their own section.



250 lbs. in six months

A Purina Pig Chow user at Hyland, Ohio, recently sent the Purina Mills a photo of four hogs, farrowed February 10, 1918, which on August 15, 1918, averaged 250 lbs. This six months' gain of 250 lbs. was possible because

Purina Pig Chow

furnishes the elements for quick growth, big frame, abundant flesh and fat. All pure ingredients—corn, digester tankage, can molasses and alfalfa flour, with a trace of charcoal and salt. No screenings or by-products used.

At your request, we will be glad to mail you our 48-page booklet, The Purina Way, fully illustrated. Our Research Department will also furnish you with any further information you desire concerning Purina Pig Chow.

PURINA MILLS

Ralston Purina Co., Prop.

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Sold only in checker-board bags.



Wanted—

Salesmen to sell dairy barn equipment. Experience in selling desirable but not absolutely essential. Experience in dairy farming an asset. Positions in other departments of our business open from time to time. When applying, state age, married or single, references, past experience, in first letter. Address

*James Manufacturing
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THE Farmers Fertilizer Company

Manufacturers of

Complete Fertilizers
Acid Phosphates
Sulphuric Acid

Office: 606 BRUNSON BLDG.

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& C. R. R., Columbus, Ohio.

THE NEW THOUGHT AND THE NEW MAN

(Continued from page 585)

If the farmer must depend on natural economic laws, why should he not compel other people to do likewise. If combinations or the government must raise prices or stabilize prices for others, and the farmer is forced to pay his share of all this; then why is it not right for the government to establish minimum prices or subsidy for the farmer. The government can do this by sustaining a loss.

I am pointing out various phases of the agricultural problems not trying to completely answer the questions. I am assuming that the colleges are going to help us, now that their work has become almost paternal thru the Smith-Lever act.

The curriculum of the college, and the policies of the college should be gone over by a body of men who know something of the farm problems, who know something of life, who know something of colleges, and who have human sympathy extending to the farm. Such a man as Gifford Pinchot, Dr. T. N. Carver, with some college man, some business men and some farmers who have been to college might write some new books on the subjects I have suggested, and otherwise assist in a policy which would bring about the new thought and new man.

BLACKWOOD, GREEN & CO. HARDWARE

General Hardware and Sheet
Metal — Manufacturers of
Special Laboratory
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THE SMITH AGRICULTURAL CHEMICAL COMPANY

*Acid Phosphate — Sulphuric Acid
Complete Fertilizers*

COLUMBUS, OHIO

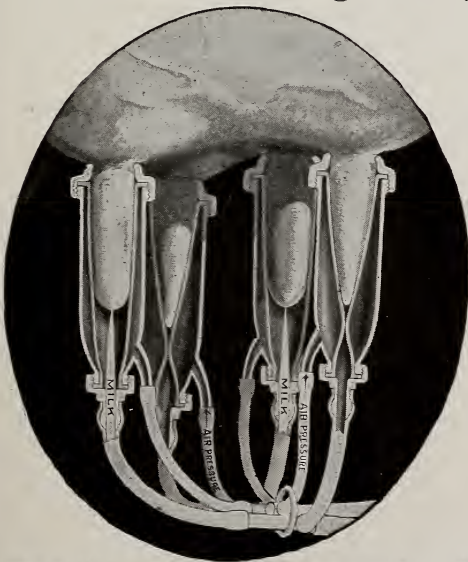
INDIANAPOLIS, IND.

The Universal Natural Milker

The illustration shows how two teats are milked at a time, approximating hand milking. It also shows how the rubber lining massages the teats from the end

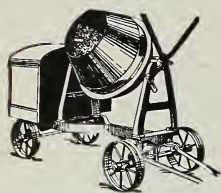
upward, thus approximating the calf's tongue when it is sucking and stops to swallow.

The cows like the **Universal** better than either the hands or the calf because of its gentle and regular action. Send for "No Stripping Booklet" and our new catalog.



UNIVERSAL MILKING MACHINE

218 West Mound St.
Columbus, Ohio



Concrete Mixers

With or without Power. Built in many sizes. Send for Mixer Catalogue and Book on "How to Make Concrete."

THE JAEGER MACHINE CO.

113 Dublin Ave., Columbus, Ohio.

BOYS WIN SCHOLARSHIPS

One hundred boys and girls of Ohio took the competitive examination recently given by the College of Agriculture. A scholarship is given by the university to the five persons in each of the four districts of Ohio making the highest grades. The winners are as follows:

Northeast District—Harley Lee, Bellville; Erval Spafford, Ashtabula; Lester McDonnell, West Lafayette; Donald Frank, Bellville; Foster Lotz, Carrollton.

Northwest District—Elzi Hefner, Lafayette; Leland Sour, Fostoria;

Leland Jones, Radnor; Harold Shawma, Foster; Donovan Berdsall, Greensprings.

Southwest District—Roger Crane, Madisonville; Edison Shephard, Madisonville; Franklin Smith, Cincinnati; Lawrence Van Schoyck, Hilliards; Harold Cramer, Hilliards.

Southeast District—Leo Davison, Utica; Carl Vanderwort, Albany; Harford Renick, Derby; Chester Hutchison, Ashville; Everett Meek, Utica.

These boys are offered the scholarships providing they signify their desires to enroll in the College of Agriculture next fall.

COMPLIMENTS OF—

RAYMOND C. GAUCH

—of the—

EQUITABLE LIFE OF IOWA

411-413 Citizens Bank Building
Gay and High Streets, Columbus

PHONES { Bell, Main 2755
Citizens - 7357

EXAMINE WHEAT FIELDS FOR HESSIAN FLY

Hessian fly infestation, which has occurred from the spring brood of flies, can be most easily determined by examining the wheat fields just previous to harvest. The spring brood of flies lay their eggs after the wheat has begun to joint. These eggs are laid on the new leaves and most of the maggots come to rest at the first, second, or third joints. The injury which results causes the wheat stems to become weak and brittle at those joints. In addition, infested plants are usually smaller and may not have the head filled with grain. Fields infested with Hessian fly always lodge badly just previous to harvest.

By examining fields after the wheat has headed out but before it is cut, fly-infested plants can be found easier than at any other time. Examine first the fallen or lodged plants and the plants with small or unfilled heads. If a large percentage of the wheat is found infested, and the condition is prevalent thruout the neighborhood, the farmers should cooperate to rid the community of this pest by observing the measures promulgated by College of Agriculture.

The wheat joint worm and the wheat straw worm also cause blighted and unfilled heads and sometimes, lodging.

The wheat straw worm differs from the wheat joint worm in that it is found in the center of the wheat stalk between the joints, usually only one larva to a stem. The larva forms no gall, nor does it harden the stem within which it develops. The eggs of the second generation are laid about the time the wheat is heading. The larvae from these eggs do not, as a rule, kill the stem, but their effect is to curtail the yield by reducing the weight. Look for blighted or unfilled heads.

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Beginners' Class—Friday, 3:00.

Juvenile Class—Saturday, 2:00.

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As the above calendar will be followed during the entire season all interested in dancing should cut out this page and reserve it for future reference.

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